



Sub Regional RTEP Committee PJM West

March 19, 2020

Project Update



AEP Transmission Zone: Baseline B3131 Scope Change

Previously Presented: 9/25/2019 SRTEP and 10/25/2019 SRTEP

Criteria: Winter Generator Deliverability and Basecase Analysis

Assumption Reference: PJM RTEP Study

Model Used for Analysis: 2024 RTEP Winter Peak Model

Proposal Window Exclusion: Substation Equipment and Below 200kV

Problem Statement:

The Haviland – East Lima 138kV line is overloaded for multiple contingencies in winter generator deliverability test and basecase analysis test. (N1-WT18, N1-WT19, N1-WT20, N1-WT21, N1-WT22, N1-WT23, N1-WT24, N1-WT25, GD-W244, GD-W3, GD-W4, GD-W5, GD-W7, GD-W8, GD-W19)



Existing Facility Ratings:

From Bus ID	From Bus Name	To Bus ID	To Bus Name	Ckt Id	SN	SE	WN	WE
242989	05E LIMA 138.00	243017	05HAVILAND1 138.00	1	143	143	143	143

Preliminary Facility Ratings:

From Bus ID	From Bus Name	To Bus ID	To Bus Name	Ckt Id	SN	SE	WN	WE
242989	05E LIMA 138.00	243017	05HAVILAND1 138.00	1	167	245	210	271



Proposed Solution:

At East Lima and Haviland 138 kV stations, replace line relays and wavetrap, on the East Lima-Haviland 138 kV facility. **In addition, replace 500 MCM Cu Risers and Bus conductors at Haviland 138 kV. (B3131)**

Reason for the additional scope: These conductors were identified as elements with ratings between the existing ratings and the desired ratings for this facility during the course of scoping the solution.

Estimated Cost: \$1.5 M

Required In-Service: 12/1/2024

Projected In-Service: 12/1/2024



Recommended Solution



DLC Duquesne Transmission Zone Baseline Crescent 138 kV Breaker "2-5 TIE"

Process Stage: Recommended Solution

Criteria: over duty breaker

Assumption Reference: PJM Planning Criteria

Model Used for Analysis: 2024 Short Circuit Model

Proposal Window Exclusion: Below 200 kV

Problem Statement:

The Crescent 138 kV oil-type breaker "2-5 TIE" is found to be over duty following a model review and correction to short circuit base case.

Existing Facility Rating: 12000 MVA

Preliminary Facility Rating: 63KA

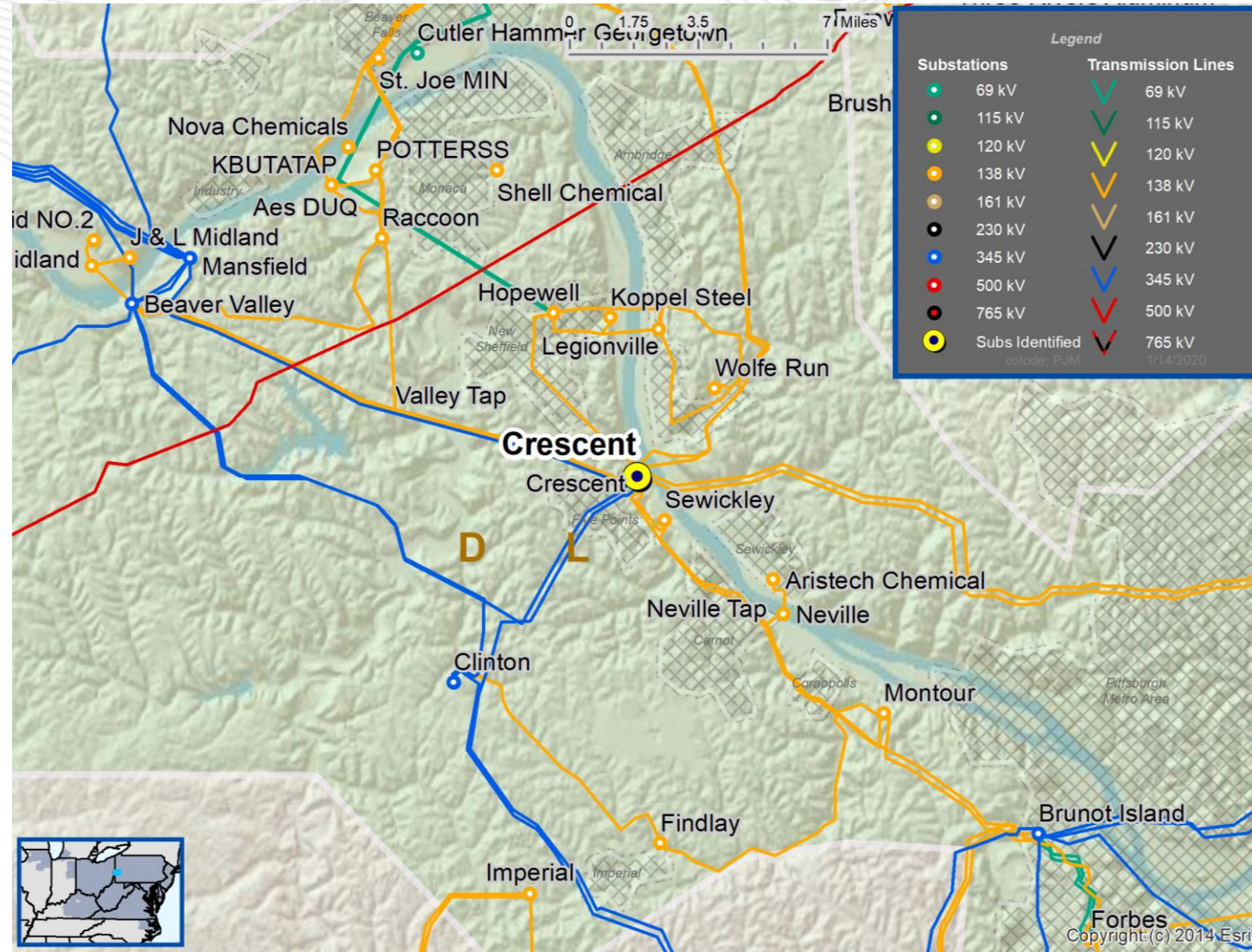
Recommended Solution:

The "2-5 TIE" breaker shall remain opened and out of service until it can be replaced with a DLC standard 138kV 63 kA breaker (B3212)

Estimated Cost: \$0.35 M

Required In-Service Date: 01/31/2020

In-Service Date: 01/31/2020



Questions?



- V1 – 3/12/2020 – Original slides posted